

## CLAIMS

1. A reception apparatus comprising:
  - a plurality of antennas spaced at a predetermined interval or more;
  - 5 a radio receiver that amplifies signals received in the antennas;
  - a reception power calculator that calculates reception power of a signal received in each of the antennas;
  - 10 an AGC gain calculator that calculates a gain such that amplified reception power is a predetermined value to instruct to the radio receiver;
  - a controller that instructs the AGC gain calculator to calculate a gain to amplify a received signal received
  - 15 in some of the antennas, when the reception power calculator calculates reception power of a signal received in another one of the antennas; and
  - a combiner that combines amplified signals received in the antennas.
- 20 2. The reception apparatus according to claim 1, wherein the radio receiver comprises a plurality of amplifiers that amplifies a signal received for each of the antennas, and a first switch that outputs an instruction output from the AGC gain calculator to either
- 25 of the amplifiers, the reception power calculator comprises a plurality of power calculators that calculates a power value of a signal received

corresponding to each of the antennas, and a second switch that outputs a power value of one of the power calculators that has completed calculation of the power value to the AGC gain calculator, and the controller instructs the  
5 second switch to output to the AGC gain calculator a power value output from either of the power calculators corresponding to one of the antennas targeted for AGC calculation, and further instructs the first switch to output the instruction output from the AGC gain calculator  
10 to corresponding one of the amplifiers.

3. The reception apparatus according to claim 1, wherein the radio receiver comprises a plurality of amplifiers that amplifies a signal received for each of the antennas, a first switch that outputs an instruction  
15 output from the AGC gain calculator to either of the amplifiers, and a third switch that selects a signal output from one of the amplifiers corresponding to one of the antennas targeted for calculation of a power value, the reception power calculator calculates the power value  
20 of the signal selected in the third switch, and the controller instructs the first switch to output an instruction output from the AGC gain calculator to corresponding one of the amplifiers, and further instructs the third switch to select a signal output from  
25 one of the amplifiers corresponding to one of the antennas targeted for calculation of a power value.

4. The reception apparatus according to claim 1,

further comprising:

an AGC operation mode switch that instructs an AGC update period,

wherein the AGC gain calculator notifies the controller  
5 of whether the AGC update period is less than or more  
than the time obtained by multiplying processing time  
of power calculation and gain calculation by the number  
of antennas, and when the AGC update period is less than  
the time obtained by multiplying the processing time of  
10 the power calculation and the gain calculation, the  
controller instructs the AGC gain calculator to calculate  
a gain to multiply a received signal received in some  
of the antennas, at the time the reception power calculator  
calculates reception power of a signal received in another  
15 one of antennas.

5. A reception method wherein radio signals are  
received in a plurality of antennas, with respect to the  
signals received in the plurality of antennas an AGC gain  
of one of the antennas is calculated when reception power  
20 of the other antenna is calculated, the signal received  
in each of the antennas is amplified by the calculated  
AGC gain, and the signals received in the antennas are  
selected and combined.